

this application, then such extensions of time are hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required therefor (including fees for net addition of claims) are hereby authorized to be charged to our Deposit Account No. 19-0036.

Amendments

In the Title:

Please substitute the following Title of the Invention for the pending Title of the Invention.

Increased Lysine Production by Gene Amplification Using Coryneform Bacteria.

In the Specification:

Please substitute the paragraph beginning on page 1, line 2 with the following paragraph.

B¹

Inventors: Hanke, Paul D.
Li-D'Elia, Lhing-Yew
Rayapati, John
Crafton, Corey M.
Walsh, Holly J.

Please substitute the paragraph beginning on page 10, line 3 with the following paragraph.

B²

Figure 1. A schematic of the L-lysine biosynthetic pathway in *Corynebacterium glutamicum* (Sahm *et al.*, *Ann. N. Y. Acad. Sci.* 782: 25-39 (1996)).

Please substitute the paragraph beginning on page 10, line 6 with the following paragraph.

B³

Figure 3 A, B. The amino acid sequence of *ask* (ATCC 21529 sequence) (SEQ ID NOS:1-2).

Please substitute the paragraph beginning on page 10, line 10 with the following paragraph.

B⁴

Figure 5 A, B. The amino acid sequence of *asd* (ATCC 21529 sequence) (SEQ ID NOS:3-4).

Please substitute the paragraph beginning on page 10, line 14 with the following paragraph.

B⁵

Figure 7. The amino acid sequence of *dapA* (NRRL-B11474) (SEQ ID NOS:5-6).

Please substitute the paragraph beginning on page 10, line 18 with the following paragraph.

B⁶

Figure 9. The amino acid sequence of *dapB* (NRRL-B11474) (SEQ ID NOS:7-8).

Please substitute the paragraph beginning on page 10, line 22 with the following paragraph.

B⁷

Figure 11 A, B. The amino acid sequence of *ddh* (NRRL-B11474) (SEQ ID NOS:9-10).

Please substitute the paragraph beginning on page 11, line 3 with the following paragraph.

B⁸

Figure 15 A, B, C. The amino acid sequence of full length *lysA* (pRS6) (SEQ ID NOS:13-14).

Please substitute the paragraph beginning on page 11, line 7 with the following paragraph.

B⁹

Figure 17. The amino acid sequence of ORF2 (NRRL-B11474) (SEQ ID NOS:15-16).

Please substitute the paragraph beginning on page 11, line 9 with the following paragraph.

B¹⁰

Figure 18. A schematic depiction of the construction of the pFC3-KDABHL and pFC3-KDABH'L lysine pathway gene constructs of the invention.

Please substitute the paragraph beginning on page 11, line 11 with the following paragraph.

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Figure 19. Comparison of the aspartokinase (*ask*) amino acid sequence from ATCC13032, N13 and ATCC21529. A consensus sequence of the alignment is depicted and alterations in the coding sequences are shown.

Please substitute the paragraph beginning on page 11, line 20 with the following paragraph.

B12

Figure 24. The amino acid sequence of truncated ORF2 (SEQ ID NOS:18-19).

Please substitute the paragraph beginning on page 11, line 24 with the following paragraph.

B13

Figure 26. The amino acid sequence of truncated LysA ('LysA')(NRRL-B11474) (SEQ ID NO:21). Underlined L: the last amino acid residue of *lysA* encoded in the truncated product.

Please substitute the paragraph beginning on page 43, line 7 with the following paragraph.

B14

Applicants have deposited clones carrying the pK184-KDABH'L multi-gene constructs at an acceptable International Depositary Authority in accordance with the Budapest Treaty on the International Recognition of the Deposit of Microorganisms for the Purposes of Patent Procedure. The deposits have been made with the Agricultural Research Service, Culture Collection (NRRL), 1815 North University Street, Peoria, Illinois 61604. Deposits made in which the pK184-KDAB or pK184-KDABH'L multi-gene constructs have been integrated into the chromosome of a host cell include the following: (1) the pK184-KDAB plasmid, integrated into the chromosome, deposited as NRRL-B30219 and NRRL-B30221 on September 16, 1999 and (2) the pK184-KDABH'L plasmid, integrated into the chromosome, deposited as NRRL-B30218, NRRL-B30220, and NRRL-B30222 on September 16, 1999. In addition, the pK184-KDABH'L multigene construct in a plasmid

B14
Cont

configuration, carried in *E. coli* DH5 α MCR, was deposited as NRRL-B30228 on September 29, 1999, and the pK184-KDAB isolated plasmid in *E. coli* was deposited as NRRL-B30628 on September 17, 2002. *E. coli* comprising pD11-KDABHL was deposited as NRRL-B30629 on September 17, 2002. The six gene construct (pDELia2-KDABHL) was deposited in *E. coli* (NRRL-B30233) on December 16, 1999. *C. glutamicum* comprising pK184-KDABHL was deposited as NRRL-B30236 on December 16, 1999. *C. glutamicum* comprising pK184-KDABHL was deposited as NRRL-B30237 on December 16, 1999. *C. glutamicum* comprising pDELia2-KDABHP1L was deposited as NRRL-B30359 on October 31, 2000. *Brevibacterium flavum* comprising pDELia2-KDABHL was deposited as NRRL-B30234 on December 16, 1999. *Brevibacterium lactofermentum* comprising pDELia2-KDABHL was deposited as NRRL-B30235 on December 16, 1999.

In the Claims:

Please substitute the following claim 2 for the pending claim 2.

B15

2. An isolated polynucleotide molecule comprising a nucleotide sequence encoding the polypeptide sequence of SEQ ID NO:2.

Please substitute the following claim 6 for the pending claim 6.

B16

6. A method comprising:
